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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/571,068

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EXAMINER

SELLERS, ROBERT E

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

04/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/571,068	Applicant(s) FURUKAWA ET AL.	
	Examiner Robert Sellers	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 and 20 is/are allowed.
- 6) ☒ Claim(s) 15-19, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8 March 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-14 and 20 are directed to a process of producing rubber polymer particles from a flocculate by contacting a mixture of an aqueous rubber latex (A) and partially water-soluble organic solvent (B) with water (D) to form a flocculate (F) which is separated from the organic solvent a water. None of the cited prior art recites the claimed separate contacting of the aqueous rubber latex and organic solvent with water.
2. PCT Publication No. WO 03/022891 on page 5, step b) (lines 3-4) discloses the combining of a polymer latex and water without the claimed partially water-soluble organic solvent. Japanese Patent No. 3-26716 (HCAPLUS abstract) espouses the mixing of a rubber latex with an aqueous CaCl_2 without the claimed partially water-soluble organic solvent.
3. The claims of copending application no. 10/558,759 represented by Yamaguchi et al. Publication No. 2007/0027233 denote the contacting of an aqueous rubber latex with a partially water-soluble organic media without the claimed separate contacting with water. Japanese Patent No. 2002-30122 (Patent Abstracts of Japan) reports the addition of methyl ethyl ketone to a graft polymer without the claimed separate contacting with water.
4. There is no motivation to form the coagulants of the cited prior art by contacting the aqueous rubber latex first with a partially water-soluble organic solvent followed by water.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-19, 21 and 22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Henton et al. Patent No. 4,778,851 or Sekmakas Patent No. 4,840,991.

5. Henton et al. (cols. 8-9, Example 3) shows an aqueous dispersion of butadiene-styrene-acrylonitrile latex grafted with styrene, acrylonitrile and glycidyl methacrylate, mixed with an epoxy resin and methyl ethyl ketone (col. 9, lines 23-25).

6. Sekmakas (col. 5, Example 1) shows a coagulate prepared by adding butanol (a species within the claimed partially water-soluble organic solvent according to the instant specification on page 21, line 6) to an aqueous latex of a copolymer of ethyl acrylate, styrene, hydroxypropyl methacrylate and a monobutyl maleate-glycerin adduct which is redispersed in 2-butoxy ethanol and water. The aqueous dispersion of copolymer particles are "used as additives in thermosetting aqueous coatings (col. 4, lines 37-38)."

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7. Claims 15-19, 21 and 22 are directed to a flocculate (claim 15), polymer particles (claim 16), a dispersion (claim 17), as well as a resin composition (claims 18 and 21) and a cured product (claims 19 and 22) containing a reactive functional group-containing polymerizable organic compound (H) such as an epoxy resin. Such claims define products obtained by the flocculate producing processes of claims 1-3, the polymer particle producing process of claim 4, the dispersion producing process of claim 5, and the resin composition producing processes of claims 6-8, thereby constituting product-by-process claims.

According to MPEP § 2113, "Product-by-Process Claims":

"[E]ven though the product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d. 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

"Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d. 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983)."

8. Henton et al. and Sekmakas prepare aqueous latexes of copolymer particles dispersed in water and partially water-soluble organic solvents. Although they are not obtained by the claimed separate contacting with water, the final products of the prior art are the same as or obvious as the claimed flocculate, dispersion, resin composition and cured product.

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9. Based on the equivalent coagulate of Sekmakas and the aqueous copolymer particle latexes dispersed in water and a partially water-soluble organic solvent of Henton et al. and Sekmakas, the prior art and claimed flocculates, polymer particles, dispersions, resin compositions and cured products are the same or similar.

The burden of proof shifts to applicants to provide evidence establishing an unobvious difference between the prior art and claimed flocculates, polymer particles, dispersion, resin compositions and cured products.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Robert Sellers/

Robert Sellers
Primary Examiner
Division 1796

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4/3/2008